

Wetland Evaluation and Restoration Along Rinconada Creek, Pueblo of Acoma, New Mexico

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The Haakú Water Office at the Pueblo of Acoma is working in conjunction with the U.S. Environmental Protection Agency (EPA) under a wetlands grant to enhance the riparian corridor along Rinconada Creek in west-central New Mexico. Riparian investigations and improvements undertaken by the Haakú Water Office and Daniel B. Stephens & Associates include:

- Developing a restoration plan.
- Restoring riparian, stream channel, and wetland areas.
- Enhancing wildlife habitat.
- Establishing day-use facilities for education and recreation.

The Pueblo of Acoma is located within Cibola County, about 60 miles west of Albuquerque. Acoma established the Haakú Water Office to assist the tribal council with water rights, quality, and resource issues at the Pueblo. They have been proactive in creating water quality standards and establishing active Clean Water Act and Wetlands programs in conjunction with EPA.

Rinconada Creek, a tributary of the Rio San Jose, lies on the north side of the pueblo along the southwestern flank of Mt. Taylor. The creek is an ephemeral stream recharged by precipitation, snowmelt and springs as it flows through lava flows from Mt. Taylor, Cretaceous sandstones, and colluvium. Elevations vary from about 6,650 to 7,100 feet above mean sea level.

The Rinconada Creek corridor is a healthy and unique riparian system as evidenced by the health and composition of the riparian vegetation, the condition of the stream banks, and diversity of wildlife. The quality of the ecosystem at Rinconada Creek will serve as a reference for additional stream assessment and restoration activities at Acoma. Initial

assessments of the site noted the invasion by non-native species such as Siberian Elm and Tamarisk, but native species are abundant and healthy. The riparian corridor lacks large stands of typical riparian vegetation such as cottonwood and willow but does include an abundance of Thinleaf alder. The alders provide bank stabilization, shade along the stream, and habitat in the canopy as well as woody debris. Water and stream quality is generally very good and reflects a healthy watershed. Suspended and dissolved constituents are low and meet the Acoma Water Quality Standards. The creek is an important wildlife corridor as noted by the variety of wildlife signs from elk, deer, black bear, mountain lions, and numerous birds.

Site assessment activities have included:

- Surveying property boundaries, channel length and cross sections.
- Observing flora and fauna.
- Monitoring water quality.
- Performing a Stream Visual Assessment.

During the stream assessment, scientists noted that the creek lacks high quality



Sandstone outcrop and basalt boulders in Rinconada Creek

habitat for native species, so restoration activities emphasized habitat enhancement and improvement. Following the removal of invasive species, the riparian corridor is being enhanced with native species of grasses, wildflowers, and trees to create a multi-tiered canopy. Pools and riffles are being created using boulders and woody debris in conjunction with plantings to provide habitat and shade for aquatic species along the stream's course. Ultimately, the area will become an outdoor classroom for educating children and adults about hydrology, geology, wetlands and wildlife conservation.

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